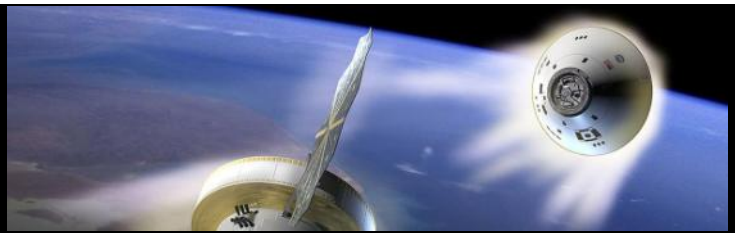
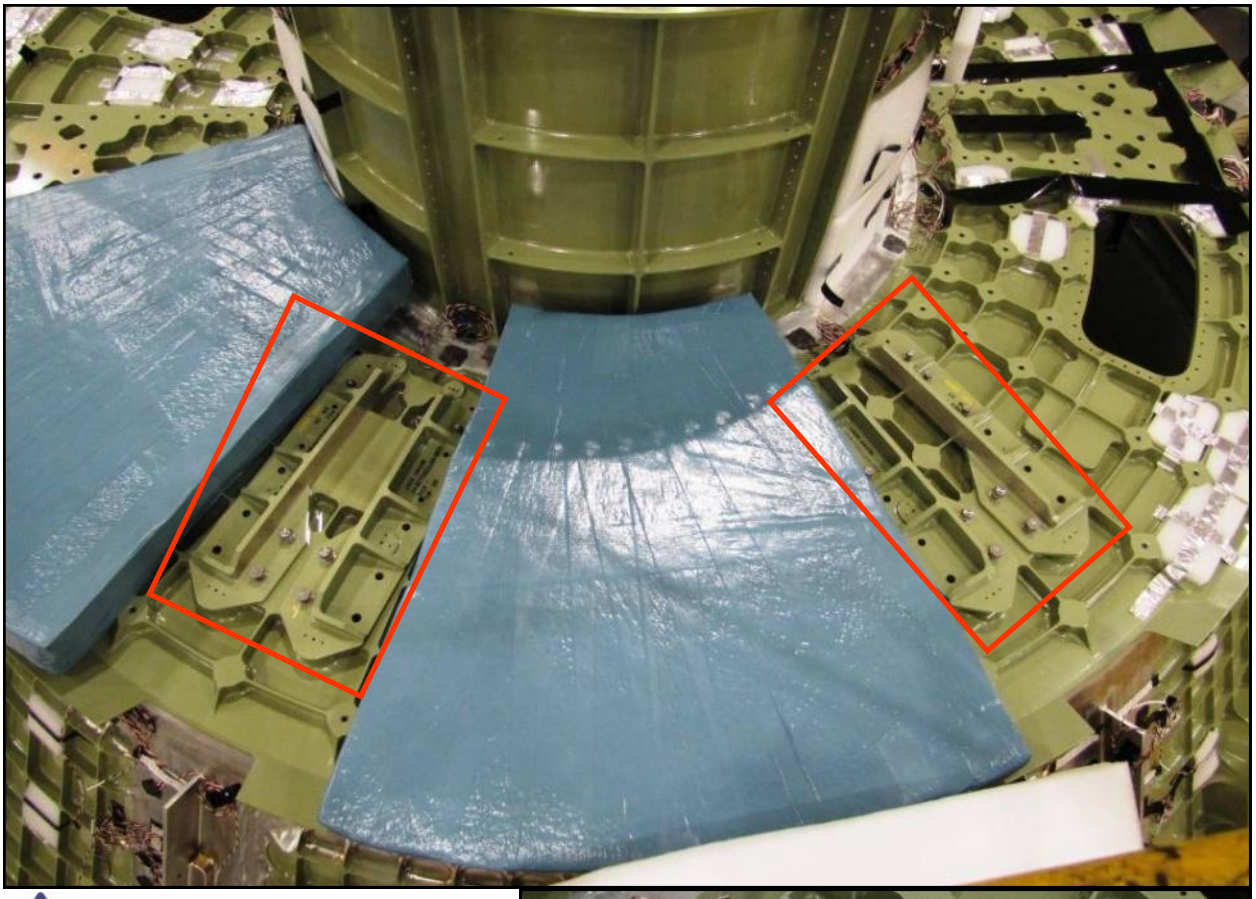
ORION
CREW EXPLORATION VEHICLE

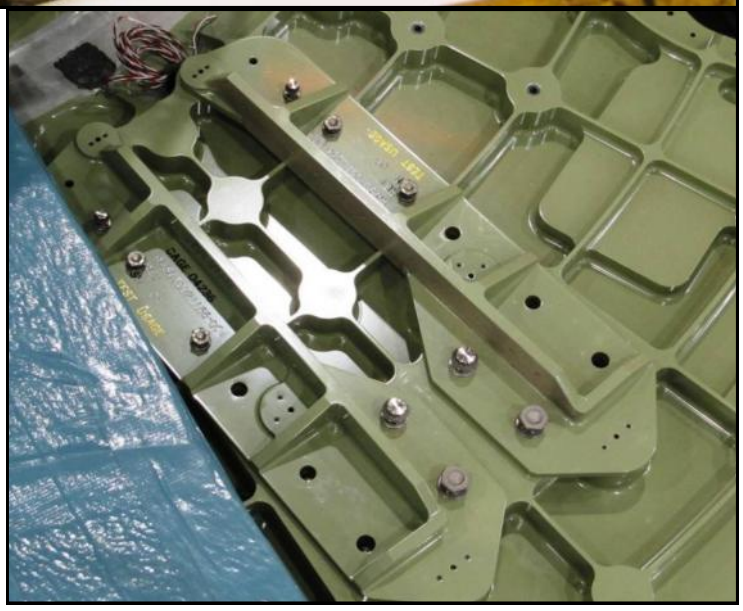
WEEKLY ACCOMPLISHMENTS



06.25.10



Progress continues on the Crew Module (CM) Ground Test Article (GTA) at the Michoud Assembly Facility in New Orleans, Louisiana. The team recently completed the Backbone fastener and shear pin installation as well as the Forward Gusset Bracket installations (shown above and right.) In addition, the installation of the wire harnesses continue, which is required for the upcoming proof pressure tests. Next, the team will install the Forward Gussets into the brackets and continue the wire harness installation work.



The first firing of the Orion Docking Mechanism Jettison System (DMJS) source shock characterization test (shown above before and during test) was conducted successfully on June 10, 2010 at Lockheed Martin's Engineering Propulsion Laboratory (EPL) located in Littleton, Colorado. Separation of a Low Impact Docking System (LIDS) mass simulator was accomplished with a single Linear Shaped Charge (LSC) explosive wrapped around a thin-walled cylindrical aluminum tube representing the CEV Crew Module (CM) Tunnel. The tube was welded to a medium fidelity CM Forward Bay simulator in order to approximate the stiffness of the spacecraft. The primary test objective of gathering clean pyroshock data for analysis was accomplished and several secondary test objectives designed to study the hazards associated with the pyrotechnic separation event were also included. Two additional test firings are planned in order to study the statistical scatter in the test results and allow better quantification of the Maximum Predicted Environment (MPE) of the docking jettison event, which occurs just after the de-orbit burn initiating atmospheric re-entry of the CEV on return from the International Space Station (ISS).

Students from Central Washington University were toured by David Brandt, Lockheed Martin Business Development Manager, through the company's "Space Experience Center" in Washington, D.C. (shown right) as part of a summer program hosted by the Small Business Administration. The Center highlights NASA exploration and space science missions with interactive displays, such as an Orion flight simulator, and a multi-purpose theater providing high-definition video presentations and demonstrations of space technologies and programs.